CLAIMS

1. A method for preventing and/or treating a bone-related disease in a mammal in need of such treatment, wherein said method comprises:

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- administering to said mammal an effective amount of a pharmaceutical composition comprising at least one GSK-3β inhibitor.
- A method for preventing and/or treating a bone-related disease in a
 mammal in need of such treatment, wherein said method comprises:
 administering to said mammal a pharmaceutically effective amount of at least one GSK-3β inhibitor.
- 3. The method according to claim 1 or 2, wherein said mammal is a human.
 - 4. The method according to claim 1 or 2, wherein said bone-related disease is selected from disorders of mineral metabolism, disorders of parathyroid hormone secretion and/or activity, metabolic bone disorders comprising osteoporosis, vitamin D related disorders, renal bone diseases, hypophosphatasia, dysplastic disorders, infiltrative disorders, extraskeletal calcification and ossification.
- 5. The method according to claim 4, wherein said bone-related disease is osteoporosis.
 - 6. The method according to claim 1 or 2, wherein said at least one GSK-3β inhibitor is selected from: lithium, bivalent zinc, beryllium, aloisines, hymenialdisine, indirubins, maleimides, muscarinic agonists, pyrazolo[3,4-*b*]quinoxalines, 5-aryl-pyrazolo[3,4-*b*]pyridazines, and functional derivatives thereof.

- 8. A method for selecting a compound useful for preventing and/or treating a bone-related disease in a mammal in need of such treatment, wherein said method comprises:
 - a) testing the ability of a candidate compound to inhibit GSK-3β activity in vitro and/or in vivo; and
 - b) if said candidate compound inhibits GSK-3 β activity, selecting said compound.
 - 9. The method according to claim 8, further comprising purifying said compound.
 - 10. The method according to claim 8, wherein said mammal is a human.
- 11. The method according to claim 8, wherein said bone-related disease is selected from disorders of mineral metabolism, disorders of parathyroid hormone secretion and/or activity, metabolic bone disorders comprising osteoporosis, vitamin D related disorders, renal bone diseases, hypophosphatasia, dysplastic disorders, infiltrative disorders, extraskeletal calcification and ossification.
 - 12. The method according to claim 11, wherein said bone-related disease is osteoporosis.

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